



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,568	09/15/2000	Alexandre S. Kossatchev	10130RO	2178

27820 7590 04/18/2003

WITHROW & TERRANOVA, P.L.L.C.  
P.O. BOX 1287  
CARY, NC 27512

EXAMINER

SHRADER, LAWRENCE J

ART UNIT	PAPER NUMBER
----------	--------------

2124

DATE MAILED: 04/18/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/663,568	KOSSATCHEV ET AL.	
	Examiner	Art Unit	
	Lawrence Shrader	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5,9,10</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 – 5, 8 – 9, 15 – 16, 18 – 19, 24 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan).

In reference to claim 1, Logan teaches and/or discloses a method and system for automatically generating skeleton test suite programs (Figure 5 & column 7, lines 24 – 27) wherein Logan teaches:

*“Decomposing...”* Logan teaches a method of partitioning (decomposing) existing test suites in an integrated test environment (ITE) (column 4, lines 46 – 51)

Art Unit: 2124

having both automatically generated and manually generated components (column 7, lines 24 – 27, column 8 lines 9 - 13) written in the implementation language.

*“Defining one or more standard schemes...”* Logan teaches a testing skeleton comprised of a basic testing structure containing a definition and execution of three types of tests (standard testing schemes) based on partition (decomposition) of the test suite (column 8, lines 7 – 19; Figure 3, step 304).

*“Providing...”* Logan teaches a skeleton description for each scheme (column 7, lines 32 – column 8, line 19), which Logan also states at column 8, lines 14 – 15, “...the testing skeleton supports definition and execution of three major types of tests...”

*“Transforming...”* Logan teaches a method for modifying (transforming) a skeleton description, and generating a test suite of the scheme (column 8, lines 1 – 6; Figure 5, step 404)

In reference to claim 2, the rejection of claim 1 being incorporated:

Logan teaches the identification of an invariant test suite (see basic test structure at column 8, lines 7 – 20), and a step to create a description of the invariant part supporting three major types of tests (column 8, lines 7 – 20, column 12, lines 34 – 35).

In reference to claim 3, the rejection of claim 1 being incorporated:

Logan teaches, through a JAVA introspection facility, that arguments (parameters) and their data types are identified and integrated into the skeleton (column 7, lines 46 – 54).

In reference to claims 4 – 5, the rejection of claim 3 being incorporated:

Art Unit: 2124

Logan teaches the method of forming a skeleton based on the JAVA language, which one skilled in the art would know inherently includes data types of text strings, integers, and arrays of strings.

In reference to claim 8, the rejection of claim 1 being incorporated:

Logan teaches that modified (variant) test suites are identified and a means to identify what components have been changed (column 7, lines 1 – 12).

In reference to claim 9, the rejection of claim 8 being incorporated:

Claim 9 is rejected because one skilled in the art would know that a skeleton, as taught by Logan, is modified into a specific tests and the variant descriptor for that specific test would be best implemented in a macro so that the test can be applied consistently by the user, e.g., a background test is varied by a specific macro to apply an interface test.

In reference to claim 15, the rejection of claim 1 being incorporated:

Claim 15 is rejected because Logan's disclosure separates the testing into three major types (or standard schemes) of tests for execution (column 8, lines 13 – 19), and further discloses that each test case is identified and integrated into the skeleton (column 7, lines 46 – 54) based on arguments (parameters) and data types.

In reference to claim 16, the rejection of claim 1 being incorporated:

Claim 16 is rejected because Logan's disclosure separates the testing into three major types (or standard schemes) of tests for execution (column 8, lines 13 – 19), and further discloses (column 8, lines 2 – 6) that the generated skeleton can be individualized for specific test cases and automatically executes each test case ("based on sequences of testing of a group of procedures").

Art Unit: 2124

In reference to claim 18 (a system), rejected for the same reasons put forth in the rejection of claim 1 above (a method).

In reference to claim 19, the rejection of claim 18 being incorporated:

Claim 19 is rejected because Logan discloses that the “desired partition and associated test suites for performing the test are selected” at step 304 in Figure 3 (column 4, lines 45 – 51), forming a decomposition function. In order to “select,” a process must be inherent to the system that would identify appropriate features prior to selection in order to incorporate those features in the test suite.

In reference to claim 24:

The following limitations identical to claim 1 are rejected for the same reasons given in the rejection of claim 1:

*“Decomposing...”*; *“defining...”*; *“providing...”*; *“transforming...”*.

Additional limitations rejected for the following reasons:

*“Generating a test suite template...”* Logan teaches a method for using a skeleton tool with specifications (expected outcomes) from the PIUT (column 8, lines 8 – 29).

*“Filling the test suite template...”* Logan teaches that a basic test structure in which parts are hand coded (column 8, lines 8 – 13).

In reference to claim 25, the rejection of claim 24 being incorporated, it would be understood by one skilled in the art that an implementation language might be compiled in order to be executed on a system.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan) as applied in the rejection of claim 1 above, in view of Rohrbaugh et al., U.S. Patent 5,390,131 (hereinafter referred to as Rohrbaugh).

Logan teaches a method of identifying test suites, defining schemes of procedure testing, providing skeleton description, and generation of a test suite, but does not teach the identification of a repetitive part of the test suite. However, Rohrbaugh teaches a method of identifying a repetitive part of a test suite, described with a pointer (column 26, lines 13 – 19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the test suite as described by Logan with the step of identifying a repetitive part of the test suite as taught by Rohrbaugh so that this functional part of the test suite might be described and applied in the test providing an enhancement of Logan's teaching with more versatile features for modifying and/or improving the new test suite being generated.

In reference to claim 7, the rejection of claim 1 being incorporated:

Claim 7 is rejected because one skilled in the art would know that a logical implementation of a repetitor step is a macro, which is designed for repetitive functions.

Art Unit: 2124

5. Claims 10 – 12 and 13 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan) as applied in the rejection of claim 1 above, in view of Loukianov, U.S. Patent 6,249,526.

In reference to claims 10 and 13, Logan teaches a method of identifying test suites having manually and automatically generated components, defining schemes of procedure testing, providing skeleton description, and generation of a test suite (see Figure 5), but does not teach the method of creating a slot description for receiving components of the test suite. However, Loukianov teaches the use of slot descriptors to describe the action to be performed in the slot, which describes the action of a component (column 1, lines 54 – 57). One skilled in the art would know that the descriptor holds criteria, which could include criteria specifying either manually developed components or automatically generated components. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the slot descriptor for receiving components as taught by Loukianov with the test suite as taught by Logan because then the test suite slots might be specifically distinguished and utilized for either manually generating components or automatically generated components.

In reference to claim 11, the rejection of claim 10 being incorporated:

Claim 11 is rejected because one skilled in the art would know that a slot descriptor could be written in a macro because a slot takes repetitive input, and a macro provides the means to duplicate or repeat a function for a specific input condition.

In reference to claim 12, the rejection of claim 10 being incorporated, Logan teaches an automatic checklist processing to support manual testing activities (column 8,



Art Unit: 2124

lines 16 – 17), which corresponds to “rigorously defined semantics for manual slot filling” in the claim.

In reference to claim 14, the rejection of claim 13 being incorporated:

Claim 14 is rejected because one skilled in the art would know that a slot descriptor could be written in a macro because a slot takes repetitive input, and a macro provides the means to duplicate or repeat a function for a specific input condition.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan) as applied in the rejection of claim 1 above, in view of Ahanessians et al., U.S. Patent 6,401,230 (hereinafter referred to as Ahanessians).

Logan teaches a method of identifying test suites having manually and automatically generated components, defining schemes of procedure testing, providing skeleton description, and generation of a test suite, but does not teach the method of creating a file of parameters and components, although this is suggested in column 7, lines 39 - 41. However, Ahanessians teaches the creation of a component and parameter file (column 5, lines 26 – 28; column 12, lines 8 – 33). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the test suite as taught by Logan with the component parameter file as taught by Ahanessians in order to provide skeleton configuration information for use in other functions.

7. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan) as applied to the rejection of claim 18 above, in view of Fowlow et al., U.S. Patent 5,860,004 (hereinafter referred to as Fowlow).

Logan teaches a system of identifying test suites having manually and automatically generated components, defining schemes of procedure testing, providing skeleton description, and generation of a test suite, but does not teach the use of a creator based on features of the test suite. However, Fowlow teaches the use of a creator using arguments (features) (column 16, lines 41 – 62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the test suite disclosed by Logan with the creator as taught by Fowlow in order to create parts of the skeleton based on features of the test suite.

8. Claims 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al., U.S. Patent 6,510,402 (hereinafter referred to as Logan) as applied in the rejection of claim 19 above, in view of Rohrbaugh et al., U.S. Patent 5,390,131 (hereinafter referred to as Rohrbaugh), and further in view of Loukianov, U.S. Patent 6,249,526.

In reference to claim 21 Logan teaches:

*“An invariant parameter...”* Logan teaches the identification of a basic test structure, or skeleton (invariant test suite) with three basis tests (column 8, lines 7 – 20).

*“A skeleton parameter...”* Logan teaches that, through a JAVA introspection facility, arguments (parameters) and their data types are identified and integrated into the skeleton (column 7, line 46 to column 8, line 6).

*“A variant identifier...”* Logan teaches that modified (variant) test suites are identified and a means to identify what components have been modified (column 7, lines 1 – 12).

Logan does not teach a repetitive part identifier, but Rohrbaugh teaches a method of identifying a repetitive part of a test suite, described with a pointer (column 26, lines 13 – 19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the test suite as described by Logan with the step of identifying a repetitive part of the test suite as taught by Rohrbaugh so that this functional part of the test suite might be described and applied in the test.

Logan modified by Rohrbaugh does not teach manually developed or automatically generated component identifiers, but Loukianov teaches the means to identify the action of a component (column 1, lines 54 – 57). One skilled in the art would know that the descriptor holds criteria, which could include criteria specifying either manually developed components or automatically generated components. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the component descriptor as taught by Loukianov with the test suite as taught by Logan modified by the repetitive part identification as taught by Rohrbaugh such that the test suite might be specifically distinguished for either manually or automatically generated components.

In reference to claim 22:

Same disclosure of Logan as applied to claim 21 above, having the same limitations, is incorporated. Logan does not teach the use of a creator. However, Fowlow teaches the use of a creator (column 16, lines 41 – 62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the test suite disclosed by Logan with the creator as taught by Fowlow in order to create parts

Art Unit: 2124

of the skeleton describer based on features of the test suite in order to provide various descriptions for the test suite.

In reference to claim 23 (a system), rejected for the same reasons put forth in the rejection of claim 15 above (a method).

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 5,974,569 to Nickles, testing groups of procedures

U.S. Patent 6,212,667 to Geer et al., running a suite of test cases using test case definition files.

U.S. Patent 6,434,500 to Boehne et al., regarding testing schemes using parameters.

U.S. Patent 6,453,292 to Ramaswamy et al., regarding feature detectors.

U.S. Patent 6,499,114 to Almstead et al., evaluation of data based on parameter values.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Art Unit: 2124

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lawrence Shrader  
Examiner  
Art Unit 2124

April 16, 2003



**TUAN Q. DAM**  
**PRIMARY EXAMINER**